

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: October 16, 1996
Date Received: October 10, 1996
Project: Metro Self Monitor, PO #M54851
Date Samples Extracted: October 11, 1996
Date Extracts Analyzed: October 15, 1996

**RESULTS FROM THE ANALYSIS OF THE WATER SAMPLE
FOR CHROMIUM, COPPER, NICKEL, AND ZINC
USING METHOD 6010**

Samples Processed Using Method 3005A
Results Reported as mg/L (ppm)

<u>Sample ID</u>	<u>Chromium</u>	<u>Copper</u>	<u>Nickel</u>	<u>Zinc</u>
M54851	0.32	0.24	0.31	0.07
Method Blank	<0.05	<0.05	<0.05	<0.05

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**QUALITY ASSURANCE RESULTS
FOR TOTAL METALS BY
INDUCTIVELY COUPLED PLASMA (ICP)
(METHOD 6010)**

Laboratory Code: 73303 (Duplicate)

Analyte:	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference	Acceptance Criteria
Chromium	mg/L (ppm)	0.32	0.32	0	0-20
Copper	mg/L (ppm)	0.24	0.24	0	0-20
Nickel	mg/L (ppm)	0.31	0.30	3	0-20
Zinc	mg/L (ppm)	0.07	0.07	0	0-20

Laboratory Code: 73303 (Matrix Spike)

Analyte:	Reporting Units	Spike Level	Sample Result	% Recovery MS MSD		Acceptance Criteria	Relative Percent Difference
Chromium	mg/L (ppm)	5	0.32	91	91	80-120	0
Copper	mg/L (ppm)	5	0.24	89	91	80-120	2
Nickel	mg/L (ppm)	10	0.31	88	89	80-120	1
Zinc	mg/L (ppm)	5	0.07	92	92	80-120	0

Laboratory Code: Spike Blank

Analyte:	Reporting Units	Spike Level	% Recovery MS MSD		Acceptance Criteria	Relative Percent Difference
Chromium	mg/L (ppm)	5	96	97	80-120	1
Copper	mg/L (ppm)	5	95	96	80-120	1
Nickel	mg/L (ppm)	10	94	96	80-120	2
Zinc	mg/L (ppm)	5	95	95	80-120	0

KNJ

10/10/90

2:35 P.M.

SAMPLE CHAIN OF CUSTODY

Send Report To:

Company Alaskan Copper Works Contact GEORGE A. Thompson
Address 628 Harbor ST
City, State, Zip Seattle WA 98134
Phone # (206) 382-8579 FAX # (206) 382-4309 Date 10/10/96

SITE NO.

PROJECT NAME

PURCHASE ORDER #

7238

METRO SELF Monitor

m 5485/

SAMPLERS (signature)

PROJECT LOCATION

REMARKS

SAMPLE DISPOSAL INFORMATION

Dispose after 30 days
Return Samples
Call for Instructions

[illegible]

SIGNATURE

PRINT NAME

COMPANY

Date _____

Relinquished by:

GERARD Thompson

ACW

75/01/01

Received by _____

KURT JOHNSON

FB & I

10/10/96

Relinquished by:

Received by:

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Beth M. Albertson, M.S.
Bradley T. Benson
Kelley D. Wilt

3012 16th Avenue West
Seattle, WA 98119-2029
TEL: (206) 285-8282
FAX: (206) 283-5044

October 16, 1996

**INVOICE # 96ACU1016-1
DUPLICATE COPY**

Accounts Payable
Alaskan Copper Works
628 South Hanford
Seattle, WA 98134

RE: Project Metro Self Monitor, PO #M54851: Results of testing requested by
Gerry Thompson, Project Manager for material submitted on October 10,
1996.

1 water sample analyzed for
Chromium, Copper, Nickel, and Zinc
using Method 6010 @ \$65 per sample

\$ 65.00

Amount Due

\$ 65.00

FRIEDMAN & BRUYA, INC.
ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Beth M. Albertson, M.S.
Bradley T. Benson
Kelley D. Wilt

3012 16th Avenue West
Seattle, WA 98119-2029
TEL: (206) 285-8282
FAX: (206) 283-5044

October 16, 1996

Gerry Thompson, Project Manager
Alaskan Copper Works
628 South Hanford
Seattle, WA 98134

Dear Mr. Thompson:

Enclosed are the results from the testing of material submitted on October 10, 1996 from your Metro Self Monitor, PO #M54851 project.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Kurt Johnson
Chemist

keh
Enclosures
ACU1016R.DOC